



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/560,707

12/15/2005

George Marmaropoulos

US030209US

6795

24737

7590

08/29/2008

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

PIZIALI, ANDREW T

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

08/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/560,707 | <b>Applicant(s)</b><br>MARMAROPOULOS ET AL. |  |
|                              | <b>Examiner</b><br>Andrew T. Piziali | <b>Art Unit</b><br>1794                     |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 10-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/15/2005</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed on 7/21/2008 has been entered.

### ***Election/Restrictions***

2. Applicant's election with traverse of Group I, claims 1-9, in the reply filed on 7/21/2008 is acknowledged. The traversal is on the ground that each of the claims share a single technical feature. This is not found persuasive because the claims fail to share a single special technical feature. As demonstrated by the "X" references on the search report, and as demonstrated by the below rejections, at least one independent claim of the application does not avoid the prior art. Therefore, the technical feature of the application is anticipated by or obvious in view of the prior art. Consequently, the inventions listed as Groups I, II, and III do not relate to a single general inventive concept under PCT Rule 13.1. Claims 10-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention. The requirement is still deemed proper and are therefore made FINAL.

3. Applicant's election with traverse of Species 4 from Species Group I and Species 4 from Species Group II, in the reply filed on 7/21/2008 is acknowledged. The traversal is on the ground that each of the claims share a single technical feature. This is not found persuasive because the claims fail to share a single special technical feature. As demonstrated by the "X" references on the search report, and as demonstrated by the below rejections, at least one independent claim of the application does not avoid the prior art. Therefore, the technical feature

Art Unit: 1794

of the application is anticipated by or obvious in view of the prior art. Consequently, the inventions listed as Groups I, II, and III do not relate to a single general inventive concept under PCT Rule 13.1. Regardless, the examiner withdraws the Species Group I and Group II restriction requirements based on the species from each Group being generic to all claims. The examiner may re-introduce the requirement in the event that the species are amended in non-generic form.

4. Applicant's election with traverse of Species 1 from Species Group III, in the reply filed on 7/21/2008 is acknowledged. The traversal is on the grounds that each of the claims share a single technical feature and that the species are allegedly not mutually exclusive. The first argument is not found persuasive because the claims fail to share a single special technical feature. As demonstrated by the "X" references on the search report, and as demonstrated by the below rejections, at least one independent claim of the application does not avoid the prior art. Therefore, the technical feature of the application is anticipated by or obvious in view of the prior art. Consequently, the species do not relate to a single general inventive concept under PCT Rule 13.1. The second argument is found persuasive based on applicant's admission and based on the current specification's disclosure that plastic, rubber, or a combination thereof is considered a "relatively rigid material" (page 7, lines 1 and 2). Therefore, the examiner withdraws the Species Group III restriction requirement.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The specification does not mention an actuator or conductive elastomeric material including an intuitive user interface configured for user interaction. Rather, the specification discloses that an actuator may cooperate with conductive elastomeric material to provide an intuitive user interface (see page 2, lines 13-17).

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear if the actuator includes an intuitive user interface configured for user interaction or if the conductive elastomeric material includes an intuitive user interface configured for user interaction.

In addition, the word “intuitive” renders the claims indefinite because it is not clear which user interface(s) is considered an "intuitive user interface.”

Art Unit: 1794

Regarding claim 6, the phrase “relatively rigid material” renders the claim indefinite. It is not clear what rigidity is being claimed. The claim is subjective rather than definitive.

***Claim Rejections - 35 USC § 102/103***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPN 6,360,615 to Smela.

Smela discloses a textile construction comprising: a conductive elastomeric material suitable for converting an interaction therewith into a signal; and an actuator cooperative with said conductive elastomeric material including an intuitive user interface configured for user interaction (see entire document including the Figures and column 4, lines 18-34, column 7, lines 8-67).

In the event that it is shown that the applied prior art does not disclose the claimed embodiment with sufficient specificity, the invention is obvious because the prior art specifically discloses the claimed constituents.

Art Unit: 1794

Regarding claim 2, one or more characteristics (e.g., resistance) of the conductive elastomeric material changes in response to the interaction (column 7, lines 8-13).

Regarding claim 3, the conductive elastomeric material has piezoelectric characteristics (column 7, lines 59-67).

Regarding claim 4, the conductive elastomeric material comprises any of the claimed conjugated polymers or ion-implanted polymer (column 7, line 59 through column 8, line 3).

Regarding claim 5, the conductive elastomeric material can have one or more of the claimed elements (column 8, lines 4-6).

Regarding claims 6 and 7, Smela discloses that plastic housings may be used (paragraph bridging columns 11 and 12). Therefore, it appears that Smela discloses that the actuator may be formed from plastic. In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the actuator from any suitable material, such as plastic or rubber, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claim 8, the actuator is cooperative with the conductive elastomeric material (column 7, lines 8-13).

Regarding claim 9, one or more characteristics of said conductive elastomeric material changes in proportional response to said interaction, said interaction causing one or more areas of said conductive elastomeric material to be displaced (column 9, lines 3-8).

12. Claims 1-3 and 5-9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPAP 2002/0075232 to Daum.

Art Unit: 1794

Daum discloses a textile construction comprising: a conductive elastomeric material suitable for converting an interaction therewith into a signal; and an actuator cooperative with said conductive elastomeric material including an intuitive user interface configured for user interaction (see entire document including the Figures, [0009], [0033], [0035], [0038], [0039], [0047]).

In the event that it is shown that the applied prior art does not disclose the claimed embodiment with sufficient specificity, the invention is obvious because the prior art specifically discloses the claimed constituents.

Regarding claim 2, one or more characteristics (e.g., resistance) of the conductive elastomeric material changes in response to the interaction ([0037] and [0038]).

Regarding claim 3, the conductive elastomeric material has piezoelectric characteristics ([0037] and [0038]).

Regarding claim 5, the conductive elastomeric material can have one or more of the claimed elements (Figures and [0039]).

Regarding claims 6 and 7, one of the rubber layers of the textile construction may be considered an actuator [0038].

Regarding claim 8, the actuator is cooperative with the conductive elastomeric material ([0038] and [0039]).

Regarding claim 9, one or more characteristics of said conductive elastomeric material changes in proportional response to said interaction, said interaction causing one or more areas of said conductive elastomeric material to be displaced ([0038], [0039], and [0047]).



Art Unit: 1794

13. Claims 1-3, 5, 8 and 9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPAP 2001/0017759 to Marmaropoulos.

Marmaropoulos discloses a textile construction comprising: a conductive elastomeric material suitable for converting an interaction therewith into a signal; and an actuator cooperative with said conductive elastomeric material including an intuitive user interface configured for user interaction (see entire document including the Figures, [0015], [0016], [0017], [0022], and [0023]).

In the event that it is shown that the applied prior art does not disclose the claimed embodiment with sufficient specificity, the invention is obvious because the prior art specifically discloses the claimed constituents.

Regarding claim 2, one or more characteristics (e.g., resistance) of the conductive elastomeric material changes in response to the interaction [0017].

Regarding claim 3, the conductive elastomeric material has piezoelectric characteristics [0017].

Regarding claim 5, the conductive elastomeric material can have one or more of the claimed elements [0015].

Regarding claim 8, the actuator is cooperative with the conductive elastomeric material [0015].

Regarding claim 9, one or more characteristics of said conductive elastomeric material changes in proportional response to said interaction, said interaction causing one or more areas of said conductive elastomeric material to be displaced [0016].

***Claim Rejections - 35 USC § 103***

14. Claims 3, 4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPAP 2001/0017759 to Marmaropoulos as applied to claims 1-3, 5, 8 and 9 above, and further in view of USPN 6,360,615 to Smela.

Regarding claims 3 and 4, the conductive elastomeric material has piezoelectric characteristics [0017]. In addition, Smela discloses that it is known in the art to use piezoelectric materials such as that claimed (see entire document including column 7, line 59 through column 8, line 3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the cord from any suitable conductive elastomeric material, such as that currently claimed, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claims 6 and 7, Marmaropoulos is silent with regards to specific actuator materials, therefore, it would have been necessary and thus obvious to look to the prior art for conventional materials. Smela discloses that it is known in the art to use plastic housings (paragraph bridging columns 11 and 12). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the actuator from plastic, motivated by the expectation of successfully practicing the invention of Marmaropoulos.

Art Unit: 1794

***Conclusion***

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T Piziali/  
Primary Examiner, Art Unit 1794